

WHAT IS CLAIMED IS:

1. A method comprising:

receiving a call setup request associated with a
voice over packet (VoP) call between an origination and
a destination;

determining whether bandwidth is available on a
communication link between the origination and the
destination; and

presenting at least one call completion option for a
call originator associated with the call setup request
when bandwidth is not available.

2. The method according to Claim 1, wherein the
call completion option comprises an alternate network
option and further comprising:

receiving a selection of the alternate network
option; and

establishing a connection between the origination
and the destination using a public switched telephone
network in response to the selection by the call
originator.

3. The method according to Claim 2, wherein
establishing the connection comprises establishing the
connection between the origination and the destination
through a gateway coupled to the public switched
telephone network.

4. The method according to Claim 1, wherein the call completion option comprises a hold option and further comprising:

receiving a selection of the hold option;

5 storing the call setup request in response to the selection of the hold option;

determining when the bandwidth is available; and

10 establishing a connection between the origination and the destination using a packet switched network when the bandwidth is available.

5. The method according to Claim 1, wherein the call completion option comprises a ring back option and further comprising:

15 receiving a selection of the ring back option;

storing the call setup request in response to the selection of the ring back option;

determining when the bandwidth is available;

20 establishing a connection between the origination and the destination using a packet switched network; and

alerting the call originator that the VoP call will proceed.

25 6. The method according to Claim 1, and further comprising:

determining available bandwidth on a link to complete the VoP call; and

30 reducing available bandwidth by the bandwidth used to complete the VoP call.

7. The method according to Claim 6, and further comprising updating a call status table in response to completing the VoP call, the call status table comprising a status indication and the status indication comprising an indication of the status of the VoP call.

8. The method according to Claim 1, wherein presenting the call completion option comprises presenting the call completion option using an interactive voice response system.

9. The method according to Claim 1, wherein presenting the call completion option comprises presenting the call completion option using at least one programmable key associated with a phone.

10. The method according to Claim 1, wherein determining the amount of available bandwidth comprises consulting a bandwidth table, the bandwidth table comprising a first location, a second location, a maximum bandwidth indication and an available bandwidth indication.

11. The method according to Claim 1, wherein the origination and the destination respectively comprise devices that communicate audio information using data packets.

12. A phone comprising:
a memory;
an application stored in the memory;
a processor coupled to the memory, the processor,
5 when executing the application, operable to:

receive a call denial message, the call denial
message indicating that insufficient bandwidth exists to
complete a phone call originated by a call originator;

10 determine at least one call completion option
to communicate to the call originator; and

communicate the call completion option to the
call originator.

13. The phone according to Claim 12, wherein the
15 call completion option comprises an alternate network
option and, the processor, when executing the
application, is further operable to:

receive a selection of the alternate network option;
and

20 establish a connection between an origination device
associated with the call originator and a destination
using a public switched telephone network in response to
the selection by the call originator.

25 14. The phone according to Claim 12, wherein the
determination of the call completion option to
communicate to the call originator is based on a status
associated with the call originator.

15. A method comprising:
initiating a Voice over Packet (VoP) call using a
call setup request from an origination to a destination;
receiving a rejection of the VoP call at the
5 origination;
displaying a call completion option at the
origination in response to the rejection; and
receiving the selection of the call completion
option by a user associated with the origination.

10 16. The method according to Claim 15, wherein the
call completion option comprises a hold option and
further comprising:

15 storing the call setup request in response to the
selection of the hold option;
determining when the bandwidth is available; and
establishing a connection between the origination
and the destination using a packet switched network.

20 17. The method according to Claim 15, wherein the
call completion option comprises an alternate network
option and further comprising establishing a connection
between the origination and the destination using a
public switched telephone network in response to the
25 selection of the call completion option by the call
originator.

30 18. The method according to Claim 15, wherein
displaying the call completion option comprises
programming a programmable key associated with the
origination.

19. A system comprising:

means for initiating a Voice over Packet (VoP) call using a call setup request from an origination to a destination;

5 means for receiving a rejection of the VoP call at the origination;

means for displaying a call completion option at the origination in response to the rejection; and

10 means for receiving the selection of the call completion option by a user associated with the origination.

20. The system according to Claim 19, wherein the call completion option comprises a hold option and further comprising:

15 means for storing the call setup request in response to the selection of the hold option;

means for determining when the bandwidth is available; and

20 means for establishing a connection between the origination and the destination using a packet switched network.

21. The system according to Claim 19, wherein the call completion option comprises an alternate network option and further comprising means for establishing a connection between the origination and the destination using a public switched telephone network in response to the selection of the call completion option by the call originator.

22. The system according to Claim 19, wherein the means for displaying the call completion option comprises means for programming a programmable key associated with the origination.

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23. A method comprising:

receiving a call setup request associated with a voice over packet (VoP) call between an origination and a destination at a first call manager;

5 determining whether bandwidth is available on a first communications link;

communicating the call setup request to a second call manager coupled to the first call manager using a second communications link;

10 determining whether bandwidth is available on the second communication link at the second call manager; and

15 determining at least one call completion option at the first call manager for a call originator associated with the origination when bandwidth is not available on either of the first and second communications links.

24. The method according to Claim 23, wherein the call completion option comprises an alternate network option and further comprising:

20 receiving a selection of the alternate network option at the first call manager; and

25 establishing a connection between the origination and the destination using a public switched telephone network in response to the selection by the call originator.

30 25. The method according to Claim 24, wherein establishing the connection comprises establishing the connection between the origination and the destination through a gateway coupled to the public switched telephone network.

26. The method according to Claim 23, wherein the call completion option comprises a hold option and further comprising:

5 receiving a selection of the hold option at the first call manager;

storing the call setup request in response to the selection of the hold option at the first call manager;

determining when the bandwidth is available on the first and second communication links; and

10 establishing a connection between the origination and the destination using the first and second communication links.

27. The method according to Claim 23, wherein the call completion option comprises a ring back option and further comprising:

15 receiving a selection of the ring back option at the first call manager;

20 storing the call setup request in response to the selection of the ring back option at the first call manager;

determining when the bandwidth is available on the first and second communication links;

25 establishing a connection between the origination and the destination using the first and second communication links; and

alerting the call originator that call will proceed.

28. The method according to Claim 23, and further comprising updating a first call status table at the first call manager in response to completing the VoP call, the first call status table comprising a first status indication associated with the VoP call originating from the originator coupled to the first call manager, and the first status indication comprising an indication of the status of the VoP call originating from the originator coupled to the first call manager.

29. The method according to Claim 28, and further comprising synchronizing the first call status table with a second call status table at the second call manager, the second call status table comprising a second status indication associated with VoP calls originating from a further originator coupled to the second call manager, and the second status indication comprising an indication of the status of a VoP call originating from the further originator coupled to the second call manager.

30. An apparatus comprising:

a memory;

an application stored in the memory;

5 a processor coupled to the memory, the processor,
when executing the application, operable to:

receive a call setup request associated with a
voice over packet (VoP) call between an origination and
a destination;

10 determine whether bandwidth is available on a
communication link between the origination and the
destination; and

present at least one call completion option for
a call originator associated with the call
setup request when bandwidth is not available.

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31. The apparatus according to Claim 30, wherein
the call completion option comprises an alternate network
option and wherein the processor, when executing the
application, is further operable to:

20 receive a selection of the alternate network option;
and

establish a connection between the origination and
the destination using a public switched telephone network
in response to the selection by the call originator.

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32. The apparatus according to Claim 31, wherein
the processor, when executing the application, is further
operable to establish the connection between the
origination and the destination through a gateway coupled
30 to the public switched telephone network.

33. The apparatus according to Claim 30, wherein the call completion option comprises a hold option and wherein the processor, when executing the application, is further operable to:

5 receive a selection of the hold option;
 store the call setup request in response to the selection of the hold option;
 determine when the bandwidth is available; and
 establish a connection between the origination and
10 the destination using a packet switched network when the bandwidth is available.

34. The apparatus according to Claim 30, wherein the call completion option comprises a ring back option and wherein the processor, when executing the application, is further operable to:

15 receive a selection of the ring back option;
 store the call setup request in response to the selection of the ring back option;
20 determine when the bandwidth is available;
 establish a connection between the origination and the destination using a packet switched network; and
 alert the call originator that the VoP call will proceed.

25 35. The apparatus according to Claim 30, wherein the processor, when executing the application, is further operable to:

30 determine available bandwidth on a link to complete the VoP call; and
 reduce available bandwidth by the bandwidth used to complete the VoP call.

5 36. The apparatus according to Claim 35, wherein the processor, when executing the application, is further operable to update a call status table in response to completing the VoP call, the call status table comprising a status indication and the status indication comprising an indication of the status of the VoP call.

10 37. The apparatus according to Claim 30, wherein the processor, when executing the application, is further operable to present the call completion option using an interactive voice response system.

15 38. The apparatus according to Claim 30, wherein the processor, when executing the application, is further operable to present the call completion option using at least one programmable key associated with a phone.

20 39. The apparatus according to Claim 30, wherein the processor, when executing the application, is further operable to consult a bandwidth table, the bandwidth table comprising a first location, a second location, a maximum bandwidth indication and an available bandwidth indication.

25 40. The apparatus according to Claim 30, wherein the origination and the destination respectively comprise devices that communicate audio information using data packets.

41. A call manager apparatus comprising:

a memory;

an application stored in the memory;

5 a processor coupled to the memory, the processor,
when executing the application, operable to:

receive a call setup request associated with a
voice over packet (VoP) call between an origination and a
destination;

10 determine whether bandwidth is available on a
communications link;

communicate the call setup request to a remote
call manager coupled using a second communications link;
and

15 determine at least one call completion option
for a call originator associated with the origination
when bandwidth is not available on the communications
link.

20 42. The apparatus according to Claim 41, wherein
the call completion option comprises an alternate network
option and wherein the processor, when executing the
application, is further operable to:

25 receive a selection of the alternate network option;
and

establish a connection between the origination and
the destination using a public switched telephone network
in response to the selection by the call originator.

5 43. The apparatus according to Claim 42, wherein the processor, when executing the application, is further operable to establish the connection between the origination and the destination through a gateway coupled to the public switched telephone network.

10 44. The apparatus according to Claim 41, wherein the call completion option comprises a hold option and wherein the processor, when executing the application, is further operable to:

receive a selection of the hold option;

store the call setup request in response to the selection of the hold option;

15 determine when the bandwidth is available on the communication link; and

establish a connection between the origination and the destination using the communication link.

20 45. The apparatus according to Claim 41, wherein the call completion option comprises a ring back option and wherein the processor, when executing the application, is further operable to:

receive a selection of the ring back option;

25 store the call setup request in response to the selection of the ring back option;

determine when the bandwidth is available on the communication link;

establish a connection between the origination and the destination using the communication link; and

30 alerting the call originator that call will proceed.

46. The method according to Claim 41, and wherein the processor, when executing the application, is further operable to update a first call status table in response to completing the VoP call, the first call status table comprising a first status indication associated with the VoP call originating from the originator, and the first status indication comprising an indication of the status of the VoP call originating from the originator.

47. The method according to Claim 46, and wherein the processor, when executing the application, is further operable to synchronize the first call status table with a second call status table at the remote call manager, the second call status table comprising a second status indication associated with VoP calls originating from a further originator coupled to the remote call manager, and the second status indication comprising an indication of the status of a VoP call originating from the further originator coupled to the remote call manager.